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54 Containment cuvette for PCR and method of use.

57 There are disclosed a cuvette (10, 100, 100C, 100D, 100E) and a method of use which prevent nucleic acid amplified by PCR technology from being released to the atmosphere, while still proceeding to a detection step to determine whether or not the nucleic acid is present. Detection reagents are either pre-incorporated into compartments (30, 30A, 30B, 32, 32A, 32B, 34, 34A, 34B, 36, 36A, 36B, 38, 38A, 38B, 40, 40A, 40B) and (132, 132A, 132B, 132C, 132D, 132E, 134, 134A, 134B, 134C, 134D, 134E, 136, 136A, 136B, 136C, 136D, 136E, 138, 138A, 138B, 138C, 138D, 138E, 139, 139A, 139B, 139C, 139D, 139E) in the cuvette or added after amplification. In the latter case, a check valve prevents amplified nucleic acid from being released. Transfer of liquids between compartments is achieved via the use of flexible compartment-walls and an external pressure source (60), or via pistons (113, 113C, 113D, 115, 115C, 115D, 184, 184C,

184E, 260) that are part of the cuvette and operate on the compartments as a piston within a piston chamber.

FIG. 1

